

AMENDMENTS TO THE CLAIMS

Amend the claims as follows:

Claims 1-22. (Cancelled)

23. (new) A method for increasing the fusiogenic capacities of a gamete comprising contacting the gamete with a cyclic peptide comprising the tripeptide forming a binding site of fertilin beta to oocyte integrin.

24. (new) The method according to claim 23, wherein the tripeptide is X-(Q/D/E)-E, X being an amino acid.

25. (new) The method according to claim 24, wherein the tripeptide is FEE.

26. (new) The method according to claim 23, wherein said peptide has the following formula :



wherein X represents an amino acid, m and n are comprised between 0 and 14 and "TriPept" denotes said tripeptide.

27. (new) The method according to claim 26, wherein $m+n$ is less than 10, preferably less than or equal to 5.

28. (new) The method according to claim 27, wherein said peptide has the following formula :



wherein X is an amino acid.

29. (new) The method according to claim 28, wherein X is a small and uncharged amino acid or is selected in the group consisting of A, S or T.

30. (new) The method according to claim 23, wherein the cyclic peptide is in the form of a multimer.

31. (new) The method according to claim 23, wherein the gamete is an oocyte.

32. (new) The method according to claim 23, intended to improve in vitro fertilization.

33. (new) The method according to claim 23, intended to improve artificial insemination, and/or nuclear transfer in non-human animals.

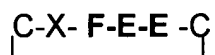
34. (new) A cyclic peptide having the following formula :



wherein X represents an amino acid, m and n are comprised between 0 and 14, a variant or a derivative thereof.

35. (new) The cyclic peptide according to claim 34, wherein m+n is less than 10 or is less than or equal to 5.

36. (new) The cyclic peptide according to claim 35, wherein said peptide having the following formula :



where X is an amino acid or is selected in the group consisting of A, S or T.

37. (new) The cyclic peptide according to claim 36, wherein X is S.

38. (new) A multimer of cyclic peptides, said peptides having the following formula :



wherein X represents an amino acid, m and n are comprised between 0 and 14 and "TriPept" designates the tripeptide X-(Q/D/E)-E forming a binding site of fertilin beta to oocyte integrin.

39. (new) The multimer according to claim 38, wherein the tripeptide is FEE.

40. (new) The multimer according to claim 38, said peptide having the following formula :



wherein X is an amino acid or is selected in the group consisting of A, S or T.

41. (new) A composition intended for gamete culture comprising a peptide according to claim 34 or a multimer as defined above.

42. (new) A method for treating fertility problems comprising administering locally in a female genital tract a peptide according to claim 12 or a multimer as defined above.

43. (new) A method for screening compounds increasing the fusiogenic capacity of oocytes comprising 1) incubating the oocyte in the presence of the test compound; and 2) evaluating the ability of the compound to increase the fusiogenic capacity of the oocyte.

44. (new) The method according to claim 43, wherein the ability of the compound to increase the fusiogenic capacity of the oocyte is evaluated by at least one of the following criteria : binding to the oocyte, induction of adhesion protein displacement to

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U.S. National Phase of PCT/FR2004/002956

the oocyte surface (more particularly of integrin $\alpha 6 \beta 1$), fusion of the oocyte with a spermatozoon.